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Enforcement and Compliance
Assurance Division

EH&S/Regulatory

October 23, 2019

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Director, Air and Toxics Technical Enforcement Program
U.S. Environmental Protection Agency – Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

Re: NSPS Subpart OOOOa Annual Report – Wyoming
Chesapeake Operating, L.L.C.

Dear Sir or Madam:

Per 40 C.F.R. § 60.5420a(b), Chesapeake Operating, L.L.C. is submitting the annual report for affected facilities under 40 C.F.R. §60.5365a for the reporting period beginning on August 2, 2018.

This certification is based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

If you have any questions, please contact Jason Conway at (405) 935-6351.

Sincerely,

Chesapeake Operating, L.L.C.

(b) (6)

Tim Beard
Vice President – Rockies Business Unit

Enclosure

cc: Wyoming Department of Environmental Quality
Air Quality Division, Herschler Building
122 West 25th Street
Cheyenne, WY 82002

VIA CERTIFIED MAIL 9414 8149 0801 4218 8143 40

Chesapeake Energy Corporation

P.O. Box 18496 / Oklahoma City, OK 73154-0496 / 6100 N. Western Avenue / Oklahoma City, OK 73118

NSPS SUBPART 6000a REPORT- WELL AFFECTED FACILITIES
Chesapeake Operating, L.L.C. 8/2/2018 8/1/2019

Well Name	State	County	Facility Name	United States Well Number	Latitude (° NAD83)	Longitude (° NAD83)	Onset of Flowback Following Hydraulic Fracturing or Refracturing (Date/Time)	Flow Directed to Separator (Date/Time)	Returned to Initial Flowback Stage (Date/Time)	Time Well Shut in and Flowback Equipment Permanently Disconnected or the Start of Production (Date/Time)	Duration of Flowback (Hours)	Duration of Recovery (Hours)	Disposition of Recovery	Duration of Combustion (Hours)	Duration of Venting (Hours)	Starting Date and Ending Date for the Period the Well Operated Under the Exception (Date)	Specific Reasons for Venting in Lieu of Capture or Combustion and/or for the Claim of Technical Infeasibility	Record of Deviations
AMASA 29-35-68 A TR 20H	WYOMING	CONVERSE	AMASA 29-35-68 A PAD	4600043300	(b) (9)		5/17/2018 18:00	05/17/19 8:00 PM, 05/20/19 8:00 PM	5/26/2018 19:00	5/23/2019 15:00	141	0	Sales	134	0		Construction on the third party gathering line was not completed. Rejection of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes. Distance to nearest pipeline is 180 ft.	No Deviation
BB 1-35-71 USA A TR 19H	WYOMING	CONVERSE	BB 1-35-71 USA A PAD	4600034275	(b) (9)		8/29/2018 16:00	8/29/2018 16:00	8/29/2018 16:00	8/29/2018 16:00	0	0	Sales	1	0			No Deviation
BB 19-35-70 USA A TR 17H	WYOMING	CONVERSE	BB 19-35-70 USA A PAD	4600031922	(b) (9)		4/30/2019 21:00	5/10/2019 20:00	5/10/2019 20:00	5/10/2019 20:00	239	0	Sales	1	0			No Deviation
BB 19-35-70 USA A TR 19H	WYOMING	CONVERSE	BB 19-35-70 USA A PAD	4600031921	(b) (9)		4/29/2019 19:00	5/8/2019 0:00	5/7/2019 23:00	5/7/2019 23:00	196	0	Sales	0	0			No Deviation
BB 19-35-70 USA B TR 20H	WYOMING	CONVERSE	BB 19-35-70 USA B PAD	4600034725	(b) (9)		5/4/2019 13:00	5/4/2019 15:00	5/4/2019 15:00	5/4/2019 15:00	2	0	Sales	1	0			No Deviation
BB 19-35-70 USA B TR 21H	WYOMING	CONVERSE	BB 19-35-70 USA B PAD	4600034725	(b) (9)		5/5/2019 16:00	5/5/2019 18:00	5/5/2019 18:00	5/5/2019 18:00	2	0	Sales	1	0			No Deviation
BB 19-35-71 USA A TR 18H	WYOMING	CONVERSE	BB 19-35-71 USA A PAD	4600030172	(b) (9)		2/10/2019 21:00	02/11/19 6:00 AM, 02/11/19 10:00 AM	2/11/2019 11:00	2/11/2019 11:00	14	0	Sales	2	0		Produced gas did not meet pipeline specification. Rejection of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
BB 19-35-71 USA A TR 20H	WYOMING	CONVERSE	BB 19-35-71 USA A PAD	4600034725	(b) (9)		2/8/2019 20:00	2/8/2019 21:00	2/8/2019 22:00	2/8/2019 22:00	2	1	Sales	1	0			No Deviation
BB 19-35-71 USA A TR 22H	WYOMING	CONVERSE	BB 19-35-71 USA A PAD	4600034727	(b) (9)		2/7/2019 13:00	2/7/2019 14:00	2/7/2019 17:00	2/7/2019 17:00	4	1	Sales	3	0		Produced gas did not meet pipeline specification. Rejection of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
BB 2-35-71 A TR 19H	WYOMING	CONVERSE	GRAHAM 2-35-71 A PAD	4600034200	(b) (9)		4/9/2019 12:00	4/9/2019 14:00	4/9/2019 14:00	4/9/2019 14:00	2	0	Sales	1	0			No Deviation
BB 2-35-71 USA A TR 18H	WYOMING	CONVERSE	GRAHAM 2-35-71 A PAD	4600034205	(b) (9)		4/7/2019 17:00	4/7/2019 19:00	4/7/2019 19:00	4/7/2019 19:00	2	0	Sales	1	0			No Deviation
BB 2-35-71 USA A TR 19H	WYOMING	CONVERSE	GRAHAM 2-35-71 A PAD	4600034199	(b) (9)		4/9/2019 13:00	4/9/2019 16:00	4/9/2019 19:00	4/9/2019 19:00	6	1	Sales	3	0		Produced gas did not meet pipeline specification. Rejection of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
BB 2-35-71 USA A TR 19H	WYOMING	CONVERSE	GRAHAM 2-35-71 A PAD	4600034201	(b) (9)		4/9/2019 16:00	4/9/2019 21:00	4/9/2019 21:00	4/9/2019 21:00	5	1	Sales	0	0			No Deviation
BB 2-35-71 USA A TR 20H	WYOMING	CONVERSE	GRAHAM 2-35-71 A PAD	4600032015	(b) (9)		4/10/2019 10:00	4/10/2019 13:00	4/10/2019 13:00	4/10/2019 13:00	3	1	Sales	0	0			No Deviation
BB 25-35-71 USA A TR 20H	WYOMING	CONVERSE	BB 25-35-71 USA A PAD	4600034621	(b) (9)		10/29/2018 14:00	10/29/2018 15:00	10/29/2018 15:00	10/29/2018 15:00	1	0	Sales	1	0			No Deviation
BB 25-35-71 USA A TR 21H	WYOMING	CONVERSE	BB 25-35-71 USA A PAD	4600034620	(b) (9)		10/29/2018 20:00	10/29/18 9:00 PM, 10/27/18 2:00 AM, 10/27/18 8:00 AM, 10/27/18 2:00 PM	10/27/2018 14:00	10/27/2018 14:00	18	0	Sales	11	0		Construction on the third party gathering line was not completed. Rejection of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes. Distance to nearest pipeline is 225 ft.	No Deviation
BB 25-35-71 USA A TR 22H	WYOMING	CONVERSE	BB 25-35-71 USA A PAD	4600034618	(b) (9)		10/30/2018 7:00	10/30/2018 8:00	10/30/2018 8:00	10/30/2018 8:00	1	0	Sales	1	0			No Deviation
BB 25-35-71 USA A TR 23H	WYOMING	CONVERSE	BB 25-35-71 USA A PAD	4600034619	(b) (9)		10/26/2018 8:00	10/26/2018 8:00	10/26/2018 10:00	10/26/2018 10:00	2	0	Sales	3	0		Produced gas did not meet pipeline specification. Rejection of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
BB 26-35-71 USA B TR 20H	WYOMING	CONVERSE	BB 26-35-71 USA B PAD	4600034729	(b) (9)		1/19/2019 13:00	01/19/19 8:00 PM, 01/20/19 2:00 AM	1/20/2019 0:00	1/20/2019 2:00	13	1	Sales	4	0		Produced gas did not meet pipeline specification. Rejection of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
BB 26-35-71 USA B TR 22H	WYOMING	CONVERSE	BB 26-35-71 USA B PAD	4600034730	(b) (9)		1/18/2019 21:00	1/18/2019 21:00	1/18/2019 21:00	1/18/2019 21:00	5	1	Sales	5	0		Produced gas did not meet pipeline specification. Rejection of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
CLAUSEN 11-34-71 USA A TR 20H	WYOMING	CONVERSE	CLAUSEN 11-34-71 USA A PAD	4600034963	(b) (9)		12/18/2018 12:00	12/18/2018 16:00	12/20/2018 23:00	12/20/2018 23:00	59	1	Sales	54	0		Construction on the third party gathering line was not completed. Rejection of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes. Distance to nearest pipeline is 220 ft.	No Deviation
CLAUSEN 11-34-71 USA A TR 21H	WYOMING	CONVERSE	CLAUSEN 11-34-71 USA A PAD	4600034964	(b) (9)		12/19/2018 10:00	12/19/2018 11:00	12/19/2018 11:00	12/19/2018 11:00	1	0	Sales	1	0			No Deviation
CLAUSEN 28-34-70 USA A TR 20H	WYOMING	CONVERSE	CLAUSEN 28-34-70 USA A PAD	4600034965	(b) (9)		6/17/2019 8:00	6/17/2019 8:00	6/17/2019 8:00	6/17/2019 8:00	1	1	Sales	1	0			No Deviation
CLAUSEN 28-34-70 USA A TR 21H	WYOMING	CONVERSE	CLAUSEN 28-34-70 USA A PAD	4600034966	(b) (9)		6/16/2019 12:00	6/16/2019 14:00	6/16/2019 14:00	6/16/2019 14:00	2	0	Sales	1	0			No Deviation

Well Name	State	County	Facility Name	United States Well Number	Latitude (° NAD83)	Longitude (° NAD83)	Onset of Flowback Following Hydraulic Fracturing or Restructuring (Date/Time)	Flow Directed to Separator (Date/Time)	Returned to Initial Flowback Stage (Date/Time)	Flow Well Shut in and Flowback Equipment Permanently Disconnected or the Start-up of Production (Date/Time)	Duration of Flowback (Hours)	Duration of Recovery (Hours)	Duration of Recovery (Days)	Duration of Shut-in (Hours)	Starting Date and Ending Date for the Period the Well Operated Under the Exception (Dates)	Specific Reasons for Shutting in Line of Collapse or Construction Failure or the Cause of Technical Infeasibility	Record of Deviations
					(b) (9)												
CLAUSEN 28-34-70 USA B TR 22H	WYOMING	CONVERSE	CLAUSEN 28-34-70 USA B PAD	49000487			8/1/2018 6:00	9/21/2018 6:00 AM 10/21/2018 9:00 AM	9/21/2018 6:00 AM 10/21/2018 9:00 AM	8/21/2018 11:00	26	1	0	0		Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
CLAUSEN 28-34-70 USA B TR 21H	WYOMING	CONVERSE	CLAUSEN 28-34-70 USA B PAD	49000488			8/1/2018 6:00	9/21/2018 6:00 AM 10/21/2018 9:00 AM	9/21/2018 6:00 AM 10/21/2018 9:00 AM	8/21/2018 14:00	26	0	0	0		Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
CLAUSEN 28-34-70 USA A TR 20H	WYOMING	CONVERSE	CLAUSEN 28-34-70 USA B PAD	49000308			7/1/2018 14:00	7/1/2018 16:00		7/1/2018 16:00	2	1	0	0		Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
CLAUSEN 28-34-70 USA A TR 21H	WYOMING	CONVERSE	CLAUSEN 28-34-70 USA B PAD	49000307			7/1/2018 16:00	7/1/2018 21:00		7/1/2018 21:00	5	1	0	0		Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
CLAUSEN 28-34-70 USA A TR 22H	WYOMING	CONVERSE	CLAUSEN 28-34-70 USA B PAD	49000306			7/1/2018 16:00	7/1/2018 21:00		7/1/2018 21:00	5	1	0	0		Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
CLAUSEN 28-34-70 USA A TR 23H	WYOMING	CONVERSE	CLAUSEN 28-34-70 USA B PAD	49000305			7/1/2018 16:00	7/1/2018 21:00		7/1/2018 21:00	5	1	0	0		Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
CLAUSEN 28-34-70 USA A TR 24H	WYOMING	CONVERSE	CLAUSEN 28-34-70 USA B PAD	49000304			7/1/2018 16:00	7/1/2018 21:00		7/1/2018 21:00	5	1	0	0		Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
CLAUSEN 28-34-70 USA A TR 25H	WYOMING	CONVERSE	CLAUSEN 28-34-70 USA B PAD	49000303			7/1/2018 16:00	7/1/2018 21:00		7/1/2018 21:00	5	1	0	0		Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
CLAUSEN 28-34-70 USA A TR 26H	WYOMING	CONVERSE	CLAUSEN 28-34-70 USA B PAD	49000302			7/1/2018 16:00	7/1/2018 21:00		7/1/2018 21:00	5	1	0	0		Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
COMB 11-33-71 USA A TR 21H	WYOMING	CONVERSE	COMB 11-33-71 USA A PAD	49009405			2/16/2018 1:00	2/16/2018 3:00		2/16/2018 7:00	6	1	0	0		Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
COMB 11-33-71 USA A TR 22H	WYOMING	CONVERSE	COMB 11-33-71 USA A PAD	49009403			2/16/2018 2:00	2/16/2018 3:00		2/16/2018 6:00	2	1	0	0		Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
COMB 11-33-71 USA B TR 23H	WYOMING	CONVERSE	COMB 11-33-71 USA A PAD	49009397			7/13/2018 12:00	7/13/2018 6:00 PM		7/13/2018 18:00	6	0	0	0		Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
LINDEN 21-34-69 USA B TR 21H	WYOMING	CONVERSE	LINDEN 21-34-69 USA B PAD	49007606			8/7/2018 17:00	8/7/2018 18:00		8/8/2018 1:00	8	1	0	0		Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
LINDEN 21-34-69 USA B TR 22H	WYOMING	CONVERSE	LINDEN 21-34-69 USA B PAD	49007605			8/8/2018 18:00	8/8/2018 1:00		8/9/2018 2:00	15	0	0	0		Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
NAPU 26-34-72 C TR 22H	WYOMING	CONVERSE	NAPU 26-34-72 C PAD	49009377			8/25/2018 8:00	8/25/2018 10:00		8/25/2018 15:00	7	0	0	0		Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
RAHREN 31-34-68 A TR 22H	WYOMING	CONVERSE	RAHREN 31-34-68 A PAD	49008354			1/16/2018 20:00	1/16/2018 20:00		1/17/2018 6:00	12	1	0	0		Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
RAHREN 31-34-68 A TR 23H	WYOMING	CONVERSE	RAHREN 31-34-68 A PAD	49008355			1/16/2018 12:00	1/16/2018 13:00		1/16/2018 16:00	4	1	0	0		Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
NRG 16-34-70 USA C TR 21H	WYOMING	CONVERSE	CLAUSEN 16-34-70 USA C PAD	49009325			2/26/2018 2:00	2/26/2018 6:00 AM 2/26/2018 9:00 PM	2/26/2018 1:00	2/26/2018 7:00	5	0	0	0		Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
NRG 16-34-70 USA B TR 22H	WYOMING	CONVERSE	NRG 16-34-70 USA D PAD	49009326			2/27/2018 21:00	2/28/2018 1:00		2/28/2018 1:00	4	1	0	0		Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation

MSR SUMMARY REPORT: WELL AFFECTED FACILITIES
 Chesapeake Operating, L.L.C. 8/2/2018-8/1/2019

Well Name	State	County	Facility Name	United States Well Number	Latitude (° NAD83)	Longitude (° NAD83)	Onset of Flowback Following Hydraulic Fracturing or Re-fracturing (Date/Time)	Flow Directed to Separator (Date/Time)	Returned to Initial Flowback Stage (Date/Time)	Time Well Shut in and Flowback Equipment Permanently Decommissioned or the Start of Production (Date/Time)	Duration of Flowback (Hours)	Duration of Recovery (Hours)	Duration of Sequestration (Hours)	Duration of Venting (Hours)	Starting Date and Ending Date for the Period the Well Operated Under the Exception (Date)	Specific Reasons for Venting in Lieu of Capture or Combustion and/or for the Status of Technical Infeasibility	Record of Deviations
					(b) (9)												
WRC 5-34-70 USA B TR 2TH	WYOMING	CONVERSE	CLAUSEN 5-34-70 USA B PAD	490804018			4/25/2018 12:00	04/25/18 6:00 PM	04/25/18 7:30 PM	04/25/18 11:00 AM	427	2018 5:00	41	0	0	Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
WRC 5-34-70 USA B TR 2TH	WYOMING	CONVERSE	CLAUSEN 5-34-70 USA B PAD	490804017			4/19/2018 23:00	4/17/2018 2:00	4/17/2018 2:00	4/17/2018 2:00	3	0	0	1	0	Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
SFU 12-34-72 USA C TR 2TH	WYOMING	CONVERSE	SFU 12-34-72 USA C PAD	490803014			7/3/2018 7:00	7/3/18 4:00 PM	7/3/2018 16:00	7/3/2018 16:00	8	0	0	0	0	Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
SFU 12-34-72 USA C TR 2TH	WYOMING	CONVERSE	SFU 12-34-72 USA C PAD	490803014			8/30/2018 14:00	8/30/18 9:00 AM	7/30/2018 9:00	7/30/2018 9:00	126	0	0	0	0	Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
SFU 19-34-72 A TR 2TH	WYOMING	CONVERSE	WAPPOGUE 19-34-72 A PAD	490806036			8/7/2018 10:00	08/07/18 12:00 AM	08/07/18 12:00 AM	8/4/2018 7:00	11	0	0	12	0	Delimited well. Construction on the third party gathering line was not completed. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
SFU 7-34-71 USA A TR 2TH	WYOMING	CONVERSE	SFU 7-34-71 USA A PAD	490809018			11/22/2018 15:00	11/22/2018 15:00	11/22/2018 15:00	11/22/2018 16:00	1	0	0	3	0	Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
SFU 7-34-71 USA A TR 2TH	WYOMING	CONVERSE	SFU 7-34-71 USA A PAD	490809020			11/23/2018 1:00	11/23/2018 3:00	11/23/2018 8:00	11/23/2018 8:00	7	0	0	4	0	Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
WCR 2-33-49 USA A TR 1TH	WYOMING	CONVERSE	WCR 2-33-49 A PAD	490803039			2/16/2019 1:00	2/16/2019 2:00	2/16/2019 4:00	2/16/2019 4:00	3	0	0	3	0	Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
WCR 2-33-49 USA A TR 1TH	WYOMING	CONVERSE	WCR 2-33-49 A PAD	490803038			2/17/2019 1:00	2/17/2019 4:00	2/17/2019 11:00	2/17/2019 11:00	10	0	0	4	0	Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
WYOMING 36-35-72 ST A TR 2TH	WYOMING	CONVERSE	WYOMING 36-35-72 ST A PAD	490808127			12/22/2018 18:00	12/23/2018 4:00	12/23/2018 14:00	12/23/2018 14:00	28	0	0	11	0	Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
WYOMING 36-35-72 ST A TR 2TH	WYOMING	CONVERSE	WYOMING 36-35-72 ST A PAD	490808128			12/23/2018 20:00	12/24/2018 4:00	12/24/2018 10:00	12/24/2018 10:00	14	1	0	6	0	Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
WYOMING 36-35-72 USA A TR 2TH	WYOMING	CONVERSE	WYOMING 36-35-72 ST A PAD	490808126			12/21/2018 19:00	12/23/2018 5:00	12/23/2018 15:00	12/23/2018 15:00	44	1	0	10	0	Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
WYOMING 36-35-72 USA A TR 2TH	WYOMING	CONVERSE	WYOMING 36-35-72 ST A PAD	490808138			2/2/2019 22:00	2/3/2019 4:00	2/3/2019 7:00	2/3/2019 7:00	8	0	0	2	0	Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
YORK 12-33-70 USA A TR 2TH	WYOMING	CONVERSE	YORK RANCH 12-33-70 A PAD	490803146			10/31/2018 7:00	10/31/2018 8:00	10/31/2018 10:00	10/31/2018 10:00	3	0	0	3	0	Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation
YORK 12-33-70 USA A TR 2TH	WYOMING	CONVERSE	YORK RANCH 12-33-70 A PAD	490804014			2/14/2019 20:00	2/14/2019 21:00	2/15/2019 1:00	2/15/2019 1:00	5	1	0	4	0	Produced gas did not meet pipeline specification. Flare/gasification of gas as a form of enhanced oil recovery or sequestration was not feasible in this field. While a portion of the gas may be used as fuel on this site, the quantity exceeded the equipment fuel rating, or no fuel usage was required. The short duration of flaring during flowback did not make it feasible to use the gas for other beneficial purposes.	No Deviation

NSPS Subpart 0000a Annual Report for period beginning 8/2/2018 - collection of fugitive emissions components at a well site

Operator Name	CHESAPEAKE OPERATING LLC
Monitoring Instrument	FLIR GF320
Serial Number	44402191
Surveys Performed By	Josh Fenton
Operator Training and Experience	Trained and Certified for Optical Gas Imaging January 2018

Site Number	Site Name	Surface Latitude Value	Surface Longitude Value	0000a Survey Date	0000a Survey Start Time	0000a Survey End Time	Ambient Temperature (F)	Sky Conditions	Max Observed Wind Speed (mph)	Number of Leaking Components	Type of Leaking Component	Repair Date	Repair Verification Method	Number and type of leaking components not repaired	Number and type of difficult to monitor or unsafe to monitor	Number and type of components placed on delay of repair	Deviation from monitoring plan?
60.5420a(b)(1)(ii)	60.5420a(b)(1)(i)	60.5420a(b)(1)(ii)	60.5420a(b)(1)(i)	60.5420a(b)(7)(i)	60.5420a(b)(7)(ii)	60.5420a(b)(7)(iii)	60.5420a(b)(7)(iv)	60.5420a(b)(7)(v)	60.5420a(b)(7)(vi)	60.5420a(b)(7)(vii)	60.5420a(b)(7)(viii)	60.5420a(b)(7)(ix)	60.5420a(b)(7)(x)	60.5420a(b)(7)(xi)	60.5420a(b)(7)(xii)	60.5420a(b)(7)(xiii)	60.5420a(b)(7)(xiv)
922358	LINDEN 21-34-69 USA B PAD	(b) (9)		9/26/2018	8:25	9:30	47	Sunny	13	2	Regulator; Valve	9/28/2018	OGL	0	0	0	N
928995	RANKIN 31-34-68 A PAD			12/20/2018	11:40	12:15	46	Sunny	9	3	Valve (2); Regulator	12/21/2018	OGL	0	0	0	N
929929	COMBS 13-33-71 A PAD			9/26/2018	7:20	8:10	42	Sunny	1	0	N/A	N/A	N/A	0	0	0	N
919409	CLAUSEN RANCH 8-34-70 B PAD			9/25/2018	10:15	11:00	52	Sunny	15	3	Valve (2); Thief Hatch	9/25/2018	OGL	0	0	0	N
915283	CLAUSEN RANCH 7-34-70 USA A P			8/29/2018	12:15	13:00	77	Sunny	9	0	N/A	N/A	N/A	0	0	0	N
902674	COMBS RANCH 7-33-70 USA C PAD			10/30/2018	15:35	16:15	47	Partly Cloudy	4	9	Thief Hatch (6); Valve; EPRV (2)	10/31/2019	OGL	0	0	0	N
911665	COMBS RANCH UNIT 33-70 8-1H PAD			10/29/2018	9:25	10:25	58	Sunny	5	8	Thief Hatch (6); Valve (2)	10/31/2019	OGL	0	0	0	N
922365	LINDEN 19-34-69 B PAD			12/13/2018	14:05	14:45	39	Partly Cloudy	12	5	Thief Hatch (4) Fitting	12/13/2018	OGL	0	0	0	N
928230	BB 19-35-70 USA A PAD			9/5/2018	7:45	8:30	56	Overcast	9	1	Thief Hatch	9/5/2018	OGL	0	0	0	N
920086	COMBS RANCH 16-33-70 B PAD			8/1/2018	12:20	13:40	78	Overcast	5	11	Regulator (2); Valve; Thief Hatch (8)	8/1/2018	OGL	0	0	0	N
912906	SUNDQUIST 19-34-72 A PAD			9/18/2018	9:25	10:00	60	Overcast	4	0	N/A	N/A	N/A	0	0	0	N
919308	YORK RANCH 12-33-70 A PAD			11/14/2018	8:10	9:00	42	Sunny	14	1	Regulator	11/14/2018	OGL	0	0	0	N
929540	BB 25-35-71 USA A PAD			12/21/2018	9:15	10:30	46	Overcast	16	5	Regulator (2); Valve (2); Thief Hatch	12/21/2018	OGL	0	0	0	N
928905	BB 1-35-71 USA A PAD			12/19/2018	9:30	10:25	42	Partly Cloudy	13	3	Thief Hatch (3)	12/19/2018	OGL	0	0	0	N
914818	GRAHAM 23-35-71 A PAD			10/26/2018	8:10	9:00	28	Partly Cloudy	10	2	Thief Hatch, Fitting	10/26/2018	OGL	0	0	0	N

NSPS Subpart OOOOa Annual Report for period beginning 8/2/2018 - collection of fugitive emissions components at a well site

Operator Name	CHESAPEAKE OPERATING LLC
Monitoring Instrument	FLIR GF320
Serial Number	44402191
Surveys Performed By	Josh Fenton
Operator Training and Experience	Trained and Certified for Optical Gas Imaging January 2018

Site Number	Site Name	Surface Latitude Value	Surface Longitude Value	OOOOa Survey Date	OOOOa Survey Start Time	OOOOa Survey End Time	Ambient Temperature (F)	Sky Conditions	Max Observed Wind Speed (mph)	Number of Leaking Components	Type of Leaking Component	Repair Date	Repair Verification Method	Number and type of leaking components not repaired	Number and type of difficult to monitor or unsafe to monitor	Number and type of components placed on delay of repair	Deviation from monitoring plan?
60.5420a(b)(1)(ii)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(7)(i)	60.5420a(b)(7)(ii)	60.5420a(b)(7)(ii)	60.5420a(b)(7)(iv)	60.5420a(b)(7)(iv)	60.5420a(b)(7)(iv)	60.5420a(b)(7)(vii)	60.5420a(b)(7)(vii)	60.5420a(b)(7)(x)	60.5420a(b)(7)(xiii)	60.5420a(b)(7)(viii)	60.5420a(b)(7)(ix)	60.5420a(b)(7)(xi)	60.5420a(b)(7)(vii)
914573	LINDEN UNIT 19-34-69 A PAD	(b) (9)		9/7/2018	7:20	8:30	58	Sunny	6	2	Fitting; Valve	9/7/2018	OGI	0	0	0	N
902663	NW FETTER 15-33-71 A PAD			10/30/2018	11:55	12:40	51	Partly Cloudy	5	1	Valve	10/30/2018	OGI	0	0	0	N
920033	RANKIN 5-33-68 A PAD			8/31/2018	12:30	13:15	81	Partly Cloudy	8	3	Thief Hatch (2); Fitting	8/31/2018	OGI	0	0	0	N
928850	WYOMING 36-34-69 ST B PAD			8/24/2018	10:30	11:15	76	Sunny	11	4	Thief Hatch (2) Valve (2)	8/24/2018	OGI	0	0	0	N
912527	YORK RANCH 33-69-5 A PAD			8/23/2018	11:55	12:50	77	Sunny	16	3	Valve; Thief Hatch; Union	8/23/2018	OGI	0	0	0	N
922348	COMBS RANCH 17-33-70 C PAD			8/2/2018	11:20	12:20	82	Sunny	6	2	Thief Hatch; EPRV	8/2/2018	OGI	0	0	0	N
914960	SUNDQUIST FLATS UNIT 9-34-71 A PAD			9/4/2018	10:10	11:00	62	Sunny	16	2	Thief Hatch (2)	9/4/2018	OGI	0	0	0	N
929058	BB 35-35-72 USA A PAD			9/6/2018	12:35	13:15	73	Partly Cloudy	15	2	Thief Hatch (2)	9/6/2018	OGI	0	0	0	N
928994	LEBAR 15-34-69 A PAD			9/5/2018	10:00	10:45	65	Overcast	10	2	Thief Hatch (2)	9/5/2018	OGI	0	0	0	N
929739	SFU 7-34-71 USA A PAD			12/21/2018	7:35	8:20	43	Partly Cloudy	9	4	Thief Hatch (2); Valve; Regulator	12/21/2018	OGI	0	0	0	N
929891	NWFJ 26-34-72 C PAD			9/27/2018	11:00	11:40	64	Partly Cloudy	11	4	Fitting (1) Valve (4)	9/27/2018	OGI	0	0	0	N
911597	CLAUSEN RANCH 18-34-70 USA A PAD			9/21/2018	7:30	8:05	45	Sunny	3	2	Thief Hatch, Fitting	9/21/2018	OGI	0	0	0	N
914477	CLAUSEN RANCH UNIT 12-34-71 A PAD			9/7/2018	8:55	9:30	64	Sunny	10	1	Thief Hatch	9/7/2018	OGI	0	0	0	N
911598	CLAUSEN RANCH UNIT 34-70 29-1H PAD			9/12/2018	9:10	9:40	75	Sunny	7	0	N/A	N/A	N/A	0	0	0	N
919261	COMBS RANCH 7-33-70 B PAD			9/25/2018	11:25	12:00	53	Sunny	14	1	Fitting	9/25/2018	OGI	0	0	0	N

NSPS Subpart OOOOa Annual Report for period beginning 8/2/2018 - collection of fugitive emissions components at a well site

Operator Name	CHESAPEAKE OPERATING LLC
Monitoring Instrument	FLIR GF320
Serial Number	44402191
Surveys Performed By	Josh Fenton
Operator Training and Experience	Trained and Certified for Optical Gas Imaging January 2018

Site Number	Site Name	Surface Latitude Value	Surface Longitude Value	OOOOa Survey Date	OOOOa Survey Start Time	OOOOa Survey End Time	Ambient Temperature (F)	Sky Conditions	Max Observed Wind Speed (mph)	Number of Leaking Components	Type of Leaking Component	Repair Date	Repair Verification Method	Number and type of leaking components not repaired	Number and type of difficult to monitor or unsafe to monitor	Number and type of components placed on delay of repair	Deviation from monitoring plan?
60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(7)(i)	60.5420a(b)(7)(ii)	60.5420a(b)(7)(ii)	60.5420a(b)(7)(iv)	60.5420a(b)(7)(iv)	60.5420a(b)(7)(iv)	60.5420a(b)(7)(vii)	60.5420a(b)(7)(x)	60.5420a(b)(7)(x)	60.5420a(b)(7)(viii)	60.5420a(b)(7)(viii)	60.5420a(b)(7)(ix)	60.5420a(b)(7)(xi)	60.5420a(b)(7)(vi)
902524	WYOMING 36-35-72 ST A PAD	(b) (9)	(b) (9)	8/28/2018	12:10	12:40	59	Partly Cloudy	6	0	N/A	N/A	N/A	0	0	0	N
915282	CLAUSEN RANCH UNIT 8-34-70 A PAD			9/24/2018	7:35	8:25	54	Sunny	4	1	Thief Hatch	9/24/2018	OGI	0	0	0	N
929741	SFU 12-34-72 USA B PAD			8/22/2018	13:55	15:00	79	Sunny	6	8	Thief Hatch (5) Valve (3)	8/22/2018	OGI	0	0	0	N
922358	LINDEN 21-34-69 USA B PAD			3/26/2019	10:15	10:55	50	Partly Cloudy	5	0	N/A	N/A	N/A	0	0	0	N
928995	RANKIN 31-34-68 A PAD			6/10/2019	14:35	15:35	68	Overcast	6	2	Thief Hatch (2)	6/18/2019	OGI	0	0	0	N
929651	BB 19-35-71 USA A PAD			6/23/2019	13:00	13:45	52	Partly Cloudy	7	2	Thief hatch (2)	6/24/2019	OGI	0	0	0	N
929929	COMBS 13-33-71 A PAD			3/25/2019	9:40	10:30	40	Overcast	10	1	Valve	3/25/2019	OGI	0	0	0	N
919409	CLAUSEN RANCH 8-34-70 B PAD			3/25/2019	7:20	8:15	38	Overcast	10	0	N/A	N/A	N/A	0	0	0	N
915283	CLAUSEN RANCH U 7-34-70 USA A P			3/21/2019	9:20	9:50	44	Sunny	10	1	Thief Hatch	3/21/2019	OGI	0	0	0	N
922349	COMBS RANCH 17-33-70 USA B PAD			4/15/2019	13:00	13:30	46	Overcast	4	0	N/A	N/A	N/A	0	0	0	N
902674	COMBS RANCH 7-33-70 USA C PAD			5/2/2019	15:35	16:05	55	Partly Cloudy	10	8	Thief Hatch (7), Fitting	5/2/2019	OGI	0	0	0	N
911665	COMBS RANCH UNIT 33-70 8-1H PAD			5/6/2019	13:55	15:20	48	Overcast	4	1	Thief Hatch	5/6/2019	OGI	0	0	0	N
922365	LINDEN 19-34-69 B PAD			6/18/2019	12:00	12:50	66	Partly Cloudy	5	2	Thief Hatch (2)	6/18/2019	OGI	0	0	0	N
928230	BB 19-35-70 USA A PAD			6/12/2019	14:30	15:30	67	Sunny	5	5	Thief Hatch (3), Valve (2)	6/12/2019	OGI	0	0	0	N
920086	COMBS RANCH 16-33-70 B PAD			1/30/2019	8:30	9:30	18	Partly Cloudy	9	3	Fitting, Thief Hatch (2)	1/30/2019	OGI	0	0	0	N

NSPS Subpart OOOOa Annual Report for period beginning 8/2/2018 - collection of fugitive emissions components at a well site

Operator Name	CHESAPEAKE OPERATING LLC
Monitoring Instrument	FLIR GF320
Serial Number	44402191
Surveys Performed By	Josh Fenton
Operator Training and Experience	Trained and Certified for Optical Gas Imaging January 2018

Site Number	Site Name	Surface Latitude Value	Surface Longitude Value	OOOOa Survey Date	OOOOa Survey Start Time	OOOOa Survey End Time	Ambient Temperature (F)	Sky Conditions	Max Observed Wind Speed (mph)	Number of Leaking Components	Type of Leaking Component	Repair Date	Repair Verification Method	Number and type of leaking components not repaired	Number and type of difficult to monitor or unsafe to monitor	Number and type of components placed on delay of repair	Deviation from monitoring plan?
60.5420a(b)(1)(iv)	60.5420a(b)(1)(i)	60.5420a(b)(1)(ii)	60.5420a(b)(1)(i)	60.5420a(b)(7)(i)	60.5420a(b)(7)(ii)	60.5420a(b)(7)(iii)	60.5420a(b)(7)(iv)	60.5420a(b)(7)(v)	60.5420a(b)(7)(vi)	60.5420a(b)(7)(vii)	60.5420a(b)(7)(viii)	60.5420a(b)(7)(ix)	60.5420a(b)(7)(x)	60.5420a(b)(7)(xi)	60.5420a(b)(7)(xii)	60.5420a(b)(7)(xiii)	60.5420a(b)(7)(xiv)
912906	SUNDQUIST 19-34-72 A PAD	(b) (9)		3/18/2019	8:35	9:30	28	Sunny	1	6	Thief Hatch (5), Valve	3/18/2019	OGI	0	0	0	N
920078	WCR 2-33-69 A PAD			6/24/2019	13:15	13:50	73	Partly Cloudy	10	1	Thief Hatch	6/24/2019	OGI	0	0	0	N
919308	YORK RANCH 12-33-70 A PAD			6/11/2019	8:45	10:45	53	Overcast	11	1	Valve	6/11/2019	OGI	0	0	0	N
929540	BB 25-35-71 USA A PAD			6/24/2019	14:30	15:30	74	Partly Cloudy	12	1	Regulator	6/24/2019	OGI	0	0	0	N
929939	RRC 4-34-70 USA D PAD			6/25/2019	14:45	15:30	78	Partly Cloudy	4	4	Thief Hatch (3), Valve	6/25/2019	OGI	0	0	0	N
928905	BB 1-35-71 USA A PAD			6/20/2019	15:10	16:00	73	Partly Cloudy	8	4	Thief Hatch (4)	6/20/2019	OGI	0	0	0	N
902623	COMBS RANCH 11-33-71 USA A PAD			6/26/2019	8:15	9:00	58	Sunny	5	1	Thief Hatch	6/26/2019	OGI	0	0	0	N
902673	COMBS RANCH 21-33-70 USA A PAD			1/21/2019	7:20	8:05	46	Overcast	11	1	Thief Hatch	1/21/2019	OGI	0	0	0	N
914818	GRAHAM 23-35-71 A PAD			6/10/2019	15:10	15:50	68	Partly Cloudy	5	2	Thief Hatch (2)	6/10/2019	OGI	0	0	0	N
929680	BB 29-35-71 USA B PAD			6/23/2019	13:50	14:30	60	Sunny	8	0	N/A	N/A	N/A	0	0	0	N
914819	GRAHAM 2-35-71 A PAD			6/25/2019	8:00	9:00	58	Sunny	3	2	Thief Hatch, Regulator	6/25/2019	OGI	0	0	0	N
914573	LINDEN UNIT 19-34-69 A PAD			6/13/2019	6:50	8:30	72	Sunny	4	8	Thief Hatch (4), Valve (4)	6/13/2019	OGI	0	0	0	N
909630	NORTHWEST FETTER 1-33-72 A PAD			1/7/2019	8:55	9:30	42	Sunny	18	0	N/A	N/A	N/A	0	0	0	N
902663	NW FETTER 15-33-71 A PAD			4/30/2019	15:35	16:00	33	Overcast	5	0	N/A	N/A	N/A	0	0	0	N
920033	RANKIN 5-33-68 A PAD			6/11/2019	9:35	10:10	55	Partly Cloudy	10	0	N/A	N/A	N/A	0	0	0	N

NSPS Subpart OOOOa Annual Report for period beginning 8/2/2018 - collection of fugitive emissions components at a well site

Operator Name	CHESAPEAKE OPERATING LLC
Monitoring Instrument	FLIR GF320
Serial Number	44402191
Surveys Performed By	Josh Fenton
Operator Training and Experience	Trained and Certified for Optical Gas Imaging January 2018

Site Number	Site Name	Surface Latitude Value	Surface Longitude Value	OOOOa Survey Date	OOOOa Survey Start Time	OOOOa Survey End Time	Ambient Temperature (F)	Sky Conditions	Max Observed Wind Speed (mph)	Number of Leaking Components	Type of Leaking Component	Repair Date	Repair Verification Method	Number and type of leaking components not repaired	Number and type of difficult to monitor or unsafe to monitor	Number and type of components placed on delay of repair	Deviation from monitoring plan?
60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(7)(i)	60.5420a(b)(7)(ii)	60.5420a(b)(7)(ii)	60.5420a(b)(7)(iv)	60.5420a(b)(7)(iv)	60.5420a(b)(7)(iv)	60.5420a(b)(7)(vii)	60.5420a(b)(7)(vii)	60.5420a(b)(7)(x)	60.5420a(b)(7)(xiii)	60.5420a(b)(7)(viii)	60.5420a(b)(7)(ix)	60.5420a(b)(7)(vi)	60.5420a(b)(7)(vi)
928830	WYOMING 36-34-69 ST B PAD	(b) (9)		3/22/2019	9:40	10:20	37	Overcast	1	4	Thief Hatch (2), Valve (2)	3/22/2019	OGI	0	0	0	N
912527	YORK RANCH 33-69-S A PAD			6/12/2019	7:00	8:20	52	Sunny	6	4	Valve (4)	6/12/2019	OGI	0	0	0	N
929942	CLAUSEN 16-34-70 USA C PAD			6/26/2019	12:20	13:00	75	Sunny	3	2	Thief Hatch (2)	6/26/2019	OGI	0	0	0	N
922348	COMBS RANCH 17-33-70 C PAD			1/30/2019	9:45	10:45	31	Sunny	10	5	Thief Hatch (4), Regulator	1/30/2019	OGI	0	0	0	N
922595	COMBS RANCH 28-33-70 B PAD			1/9/2019	9:30	10:45	36	Overcast	6	6	Thief Hatch (4), Flare, Combustor	1/9/2019	OGI	0	0	0	N
914960	SUNDQUIST FLATS UNIT 9 34-71 A PAD			2/27/2019	8:50	10:00	17	Sunny	4	2	Valve (2)	2/27/2019	OGI	0	0	0	N
929058	BB 35-35-72 USA A PAD			3/4/2019	10:50	11:30	5	Sunny	7	0	N/A	N/A	N/A	0	0	0	N
928994	LEBAR 15-34-69 A PAD			3/4/2019	8:00	8:50	5	Sunny	4	0	N/A	N/A	N/A	0	0	0	N
929649	BB 19-35-70 USA B PAD			6/26/2019	10:05	11:05	65	Partly Cloudy	3	3	Connection (2), Thief Hatch	6/26/2019	OGI	0	0	0	N
929739	SFU 7-34-71 USA A PAD			6/27/2019	10:55	11:30	70	Partly Cloudy	7	1	Valve	6/27/2019	OGI	0	0	0	N
929891	NWFU 26-34-72 C PAD			6/27/2019	9:55	10:40	70	Sunny	6	1	Thief Hatch	6/27/2019	OGI	0	0	0	N
930125	AMASA 29-35-68 A PAD			6/30/2019	8:25	9:40	64	Overcast	2	2	Fitting, Valve	6/30/2019	OGI	0	0	0	N
911587	CLAUSEN RANCH 18-34-70 USA A PAD			3/20/2019	13:55	14:15	50	Sunny	12	1	Flare	3/20/2019	OGI	0	0	0	N
914477	CLAUSEN RANCH UNIT 12 34-71 A PAD			6/12/2019	13:30	15:00	66	Partly Cloudy	8	0	N/A	N/A	N/A	0	0	0	N
911598	CLAUSEN RANCH UNIT 34-70 29-1H PAD			3/11/2019	10:50	11:20	38	Sunny	6	0	N/A	N/A	N/A	0	0	0	N

NSPS Sulpart OOOOa Annual Report for period beginning 8/2/2018 - collection of fugitive emissions components at a well site

Operator Name	CHESAPEAKE OPERATING LLC
Monitoring Instrument	FLIR GF320
Serial Number	44402191
Surveys Performed By	Josh Fenton
Operator Training and Experience	Trained and Certified for Optical Gas Imaging January 2018

Site Number	Site Name	Surface Latitude Value	Surface Longitude Value	OOOOa Survey Date	OOOOa Survey Start Time	OOOOa Survey End Time	Ambient Temperature (F)	Sky Conditions	Max Observed Wind Speed (mph)	Number of Leaking Components	Type of Leaking Component	Repair Date	Repair Verification Method	Number and type of leaking components not repaired	Number and type of difficult to monitor or unsafe to monitor	Number and type of components placed on delay of repair	Deviation from monitoring plan?
60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(1)(i)	60.5420a(b)(7)(i)	60.5420a(b)(7)(ii)	60.5420a(b)(7)(iii)	60.5420a(b)(7)(iv)	60.5420a(b)(7)(v)	60.5420a(b)(7)(vi)	60.5420a(b)(7)(vii)	60.5420a(b)(7)(viii)	60.5420a(b)(7)(ix)	60.5420a(b)(7)(x)	60.5420a(b)(7)(xi)	60.5420a(b)(7)(xii)	60.5420a(b)(7)(xiii)	60.5420a(b)(7)(xiv)
919261	COMBS RANCH 7-33-70 B PAD	(b) (9)	(b) (9)	2/11/2019	13:55	14:30	29	Sunny	15	0	N/A	N/A	N/A	0	0	0	N
902524	WYOMING 36-35-72 ST A PAD			2/21/2019	9:35	9:55	17	Overcast	10	0	N/A	N/A	N/A	0	0	0	N
915282	CLAUSEN RANCH UNIT 8-34-70 A PAD			6/20/2019	10:20	10:50	60	Partly Cloudy	8	1	Thief Hatch	6/20/2019	OGI	0	0	0	N
929698	CLAUSEN 11-34-71 USA A PAD			6/23/2019	10:40	11:45	50	Partly Cloudy	5	2	Fitting (2)	6/23/2019	OGI	0	0	0	N
929741	SFU 12-34-72 USA B PAD			3/22/2019	7:30	8:10	35	Sunny	4	3	Thief Hatch (3)	3/22/2019	OGI	0	0	0	N
929941	CLAUSEN 5-34-70 USA B PAD			6/25/2019	10:25	11:20	65	Sunny	5	2	Thief Hatch (2), Valve (3)	6/25/2019	OGI	0	0	0	N

NSPS Subpart OOOOa annual report for period beginning 8/2/2018 - Storage Vessels

Company name: Chesapeake Exploration, L.L.C.

No affected facilities removed from or returned to service during reporting period.

Facility Name	API Well IDs	Latitude (NAD83)	Longitude (NAD83)	Serial Number(s)	VOC Emission Rate (TPY/tank). Promax Calculation Methodology	(iii) Deviations Specified in §§60.5395a, 60.5411a, 60.5412a, and 60.5413a	(iv) Meets requirements specified in §60.5410a(h) (2) and (3)
LEBAR 15-34-69 A PAD	4900932488	(b) (9)		C1709035	377.44	No	Yes
				C1709037			
				C1709038			
				C1709036			
YORK RANCH 33-69-5 A PAD	4900934499	(b) (9)		EC418-077	289.68	No	Yes
	4900934500			EC418-073			
	4900928429			EC409-486			
				EC409-487			
				C1709016			
				C1709015			
				C1709005			
				C1709024			
				C1709023			
				C1709006			
				C1709010			
				C1709007			
				C1709008			
				C1709026			
				C1709018			
				C1709001			

NSPS SUBPART 6000a ANNUAL REPORT- PNEUMATIC PUMP AFFECTED FACILITIES

Chesapeake Operating LLC 8/2/2018-8/1/2019

Facility Record Number	Facility Name	STATE_NAME	Identification of Each Pump (60.6530a(b)(1))	Was the pneumatic pump constructed, modified, or reconstructed during the reporting period? (60.5420a(b)(8)(i))	What condition does the pneumatic pump meet? (60.5420a(b)(8)(i))	Control device design efficiency (60.5420a(b)(8)(i)(C))	Pneumatic pump previously reported with a change in the reported condition during the reporting period?	Deviations
915283	CLAUSEN RNCH U 7-34-70 USA A P	WY	2337409	N	Emissions routed to a control device	95%	N	None
915283	CLAUSEN RNCH U 7-34-70 USA A P	WY	2146051	N	Emissions routed to a control device	95%	N	None
922365	LINDEN 19-34-69 B PAD	WY	2337401	N	Emissions routed to a control device	95%	N	None
922365	LINDEN 19-34-69 B PAD	WY	2337405	N	Emissions routed to a control device	95%	N	None
922358	LINDEN 21-34-69 USA B PAD	WY	2337410	Y	Emissions routed to a control device	95%	N	None
929741	SFU 12-34-72 USA B PAD	WY	2335061	N	Emissions routed to a control device	95%	N	None
912906	SUNDQUIST 19-34-72 A PAD	WY	2350951	Y	Emissions routed to a control device	95%	N	None
928850	WYOMING 36-34-69 ST B PAD	WY	2337403	N	Emissions routed to a control device	95%	N	None

Attachments

40 CFR § 60.5420a (b)(12): Certifications signed by a qualified professional engineer for each closed vent system routing to a control device or process.



ATTACHMENT A – Professional Engineer Certification

Independent Engineering Assessment of Closed Vent System and Control Device Design and Capacity

Chesapeake Operating LLC Lebar 15-34-69 A TR 22H Oil Production Facility
October 12, 2018

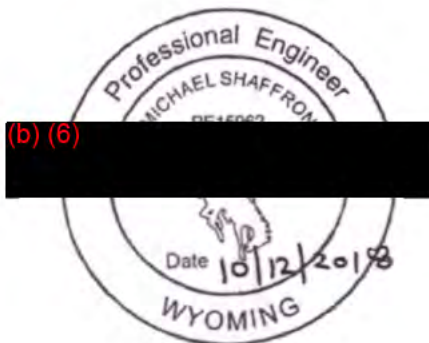
Professional Engineer Certification

I certify that the closed vent system design and capacity assessment was prepared under my direction or supervision. I further certify that the closed vent system design and capacity assessment was conducted and this report was prepared pursuant to the requirements of Subpart OOOOa of 40 CFR part 60. Based on my professional knowledge and experience, and inquiry of personnel involved in the assessment, the certification submitted herein is true, accurate, and complete. I am aware that there are penalties for knowingly submitting false information.

Michael Shaffron, P.E.
Certifying Professional Engineer

10/12/2018
Date

Wyoming P.E. License No.: PE 15962





ATTACHMENT A – Professional Engineer Certification

Independent Engineering Assessment of Closed Vent System and Control Device Design and Capacity

Chesapeake Operating LLC York Ranch 33-69-5 A Pad Oil Production Facility
October 12, 2018

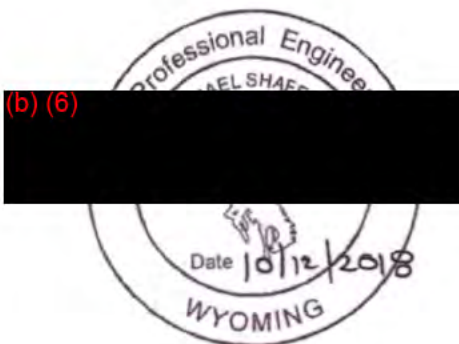
Professional Engineer Certification

I certify that the closed vent system design and capacity assessment was prepared under my direction or supervision. I further certify that the closed vent system design and capacity assessment was conducted and this report was prepared pursuant to the requirements of Subpart OOOOa of 40 CFR part 60. Based on my professional knowledge and experience, and inquiry of personnel involved in the assessment, the certification submitted herein is true, accurate, and complete. I am aware that there are penalties for knowingly submitting false information.

Michael Shaffron, P.E.
Certifying Professional Engineer

10/12/2018
Date

Wyoming P.E. License No.: PE 15962





ATTACHMENT A – Professional Engineer Certification

Independent Engineering Assessment of Closed Vent System and Control Device Design and Capacity

Chesapeake Operating LLC Wyoming 36-34-69 ST B Pad Oil Production Facility
October 12, 2018

Professional Engineer Certification

I certify that the closed vent system design and capacity assessment was prepared under my direction or supervision. I further certify that the closed vent system design and capacity assessment was conducted and this report was prepared pursuant to the requirements of Subpart OOOOa of 40 CFR part 60. Based on my professional knowledge and experience, and inquiry of personnel involved in the assessment, the certification submitted herein is true, accurate, and complete. I am aware that there are penalties for knowingly submitting false information.

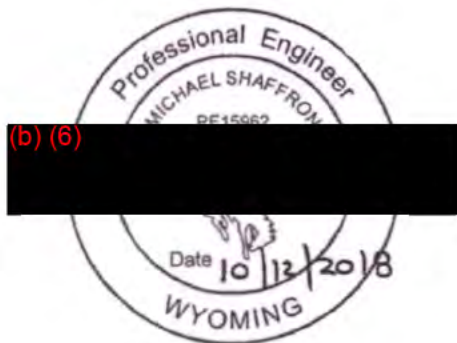
Michael Shaffron, P.E.

Certifying Professional Engineer

10/12/2018

Date

Wyoming P.E. License No.: PE 15962





ATTACHMENT A – Professional Engineer Certification

Independent Engineering Assessment of Closed Vent System and Control Device Design and Capacity

Chesapeake Operating LLC SFU 12-34-72 USA B Pad Oil Production Facility
October 12, 2018

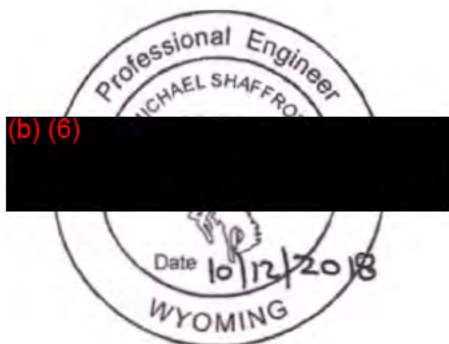
Professional Engineer Certification

I certify that the closed vent system design and capacity assessment was prepared under my direction or supervision. I further certify that the closed vent system design and capacity assessment was conducted and this report was prepared pursuant to the requirements of Subpart OOOOa of 40 CFR part 60. Based on my professional knowledge and experience, and inquiry of personnel involved in the assessment, the certification submitted herein is true, accurate, and complete. I am aware that there are penalties for knowingly submitting false information.

Michael Shaffron, P.E.
Certifying Professional Engineer

10/12/2018
Date

Wyoming P.E. License No.: PE 15962





ATTACHMENT A – Professional Engineer Certification

Independent Engineering Assessment of Closed Vent System and Control Device Design and Capacity

Chesapeake Operating LLC Linden 19-34-69 B Pad Oil Production Facility

October 12, 2018

Professional Engineer Certification

I certify that the closed vent system design and capacity assessment was prepared under my direction or supervision. I further certify that the closed vent system design and capacity assessment was conducted and this report was prepared pursuant to the requirements of Subpart 0000a of 40 CFR part 60. Based on my professional knowledge and experience, and inquiry of personnel involved in the assessment, the certification submitted herein is true, accurate, and complete. I am aware that there are penalties for knowingly submitting false information.

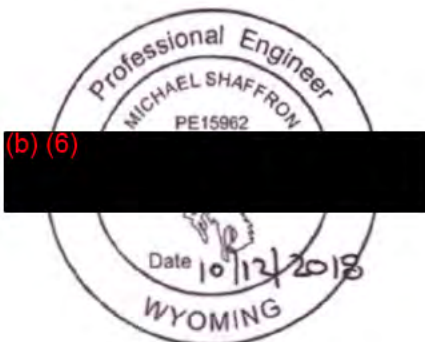
Michael Shaffron, P.E.

Certifying Professional Engineer

10/10/2018

Date

Wyoming P.E. License No.: PE 15962





ATTACHMENT A – Professional Engineer Certification

Independent Engineering Assessment of Closed Vent System and Control Device Design and Capacity

Chesapeake Operating LLC Clausen Ranch Unit 7-34-70 USA A Pad Oil Production Facility
October 12, 2018

Professional Engineer Certification

I certify that the closed vent system design and capacity assessment was prepared under my direction or supervision. I further certify that the closed vent system design and capacity assessment was conducted and this report was prepared pursuant to the requirements of Subpart OOOOa of 40 CFR part 60. Based on my professional knowledge and experience, and inquiry of personnel involved in the assessment, the certification submitted herein is true, accurate, and complete. I am aware that there are penalties for knowingly submitting false information.

Michael Shaffron, P.E.
Certifying Professional Engineer

10/12/2018
Date

Wyoming P.E. License No.: PE 15962



Compliance Evaluation of Closed Vent System Designs per 40 CFR 60 Subpart OOOOa, section 60.5411a
Linden 21-34-69 USA B Pad

(5) REPORT CONCLUSIONS AND CERTIFICATION

I certify that the closed vent system design and capacity assessment was prepared under my direction or supervision. I further certify that the closed vent system design and capacity assessment was conducted and this report was prepared pursuant to the requirements of subpart OOOOa of CFR part 60. Additional air permitting and compliance activities should need to follow up with Chesapeake's HSER department.

Based on my professional knowledge and experience, and inquiry of personnel involved in the assessment, the certification submitted herein is true, accurate, and complete. I am aware that there are penalties for knowingly submitting false information.

(b) (6)

PE Signature: _____

Facility: Linden 21-34-69 USA B Pad

Date: October 15, 2019



PE Number: *WY PE 16745*

Compliance Evaluation of Closed Vent System Designs per 40 CFR 60 Subpart OOOOa, section 60.5411a
Sundquist 19-34-72 A Pad

(5) REPORT CONCLUSIONS AND CERTIFICATION

I certify that the closed vent system design and capacity assessment was prepared under my direction or supervision. I further certify that the closed vent system design and capacity assessment was conducted and this report was prepared pursuant to the requirements of subpart OOOOa of CFR part 60. Additional air permitting and compliance activities should need to follow up with Chesapeake's HSER department.

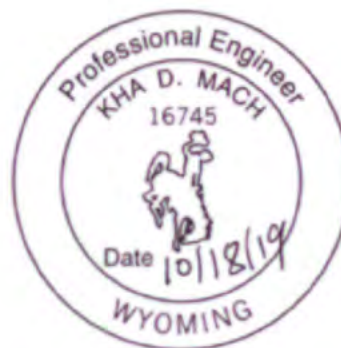
Based on my professional knowledge and experience, and inquiry of personnel involved in the assessment, the certification submitted herein is true, accurate, and complete. I am aware that there are penalties for knowingly submitting false information.

(b) (6)

PE Signature: _____

Facility: Sundquist 19-34-72 A Pad

Date: October 15, 2019



PE Number: *WY PE 16745*



9414 8149 0108 4218 8143 33

U.S. Environmental Protection Agency – Region
8
Director, Air and Toxics Technical Enforcement
Program
1595 Wynkoop Street
Denver, CO 80202-1129